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# Initial assessment of the policy framework for the livestock sector

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<sup>1</sup> Document, report (R), Demonstrator, pilot, prototype (DEM), Websites, patent filings, videos, etc., OTHER, Ethics requirement (ETHICS), Open Research Data Pilot (ORDP), Data sets, microdata, etc. (DATA)

<sup>2</sup> Public (PU), Restricted to other programme participants including EC (PP), Restricted to a group specified by the consortium including the EC (RE), Confidential, only for members of the consortium including EC (CO)

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## Introduction

The PATHWAYS project will provide a Holistic Policy and Innovation Evaluation Framework to assess current policies and future scenarios affecting the sustainable development of the livestock sector. Identifying opportunities and gaps for further development is an essential part of the Framework development, to ensure that the evaluations meet requirements/expectations of citizens and consumers. Here we contribute to this identification, through an overview of past trends and future needs within policies affecting the development of the livestock sector in Europe. The overarching project concepts are used as a framework for this evaluation: (1) the Donella Meadows inspired “Leverage Points” concept; (2) the FAO Sustainability Assessment of Food and Agriculture Systems (SAFA) based “Trade-offs in Sustainability” guidelines; (3) the holistic “One Welfare” concept. An overview of these three complimentary frameworks is presented below.

## Overview of the PATHWAYS project concepts

### LEVERAGE POINTS FOR FOOD SYSTEMS

The “leverage points” concept is based on claims that sustainability science is often focused on interventions which are tangible but essentially weak in terms of transformation potential, largely due to their singular focus on either environmental, social, or economic goals. In this context, Meadows (1998) and Abson et al. (2017) argue for an integrated systemic framework for tackling societal challenges in which science is better joined up across disciplines to research and identify places where an adjustment may lead to overall systemic change, i.e., effective (strong) “leverage points”. Abson et al. (2017) proposed that such interventions can occur across three key realms of “deep leverage”: 1. “Re-connect”: reconnecting people to nature to encourage sustainable behaviours whilst shortening feedbacks and improving wellbeing; 2. “Re-think”: considering how knowledge is created and used, shared, and validated and 3. “Re-structure”: re-organising institutions and considering how institutional dynamics can create an enabling environment for sustainability. In PATHWAYS the three realms of leverage are applied to identify possible policy and practice-led interventions that can affect meaningful change in livestock-based food systems.

## SUSTAINABILITY TRADE-OFFS

Sustainability is an amorphous concept with multiple interpretations, presented in a wide range of tools and evaluation frameworks. A recent FAO-led initiative aimed to address a current lack of convergence through an international reference for sustainability management, monitoring and reporting in food and agriculture in general. The development of the FAO Sustainability Assessment for Food and Agriculture systems (SAFA) guidelines was based on an extensive literature review combined with a global stakeholder survey and face-to-face interviews with selected experts. Four core domains are identified within SAFA as representing the crucial issues for the development of sustainable agricultural systems:

1. **Environmental** - encompassing atmosphere, freshwater, biodiversity, land, materials and energy, and animal welfare elements;
2. **Social** – encompassing decent livelihoods, labour rights, equity, human health and safety, cultural diversity;
3. **Economic** – encompassing investment, vulnerability, product safety and quality, local economy aspects;
4. **Governance** – addressing governance structure, accountability, participation, rule of law, holistic management aspects.

The SAFA framework provides an outline procedure for an integrated and holistic analysis of all four sustainability dimensions and includes guidelines on the selection of appropriate indicators and rating of sustainability performance (best, good, moderate, insufficient). As the guidelines are widely accepted within the sector and underlie several of the most recently developed sustainability assessment tools (de Olde et al., 2017) we adopt SAFA as a reference-point for PATHWAYS and for the evaluations presented in this report.

## ONE WELFARE

The One Welfare Framework, coined by Rebeca García Pinillos, delineates the connections between animal welfare, human wellbeing, and the physical and social environment. It builds on the One Health concept, extending its scope to include welfare considerations in-light of global trade and the expansion of livestock production into wild habitats, food safety, climate change, zoonoses and biodiversity loss (Pinillos, 2018). The One Welfare approach highlights that when animals suffer and endure cruelty, their immune systems are weakened, creating conditions that can promote disease to spread between animals, and potentially to humans. Through the application of this framework and by recognising that human and animal welfare are

intrinsically connected, PATHWAYS will produce recommendations that can help promote human health and reduce risks of disease, whilst simultaneously tackling the most pressing global environmental problems.

## **Application of the project concepts in PATHWAYS and within Deliverable 2.1**

The complementary concepts applied in PATHWAYS will form the basis for a Holistic Policy and Innovation Evaluation Framework, to be applied to assess scenarios developed in work-package 2 of PATHWAYS, and to help determine “what works” in driving effective change for sustainable development within the EU livestock sector. The analyses presented in this report provide a starting point for this work, through the following sections:

1. First a structured literature review outlines how livestock-focussed EU policies have evolved since 2012. The review identifies current gaps in the literature and outlines possible under-researched / developed areas that could be addressed in the future development of an evaluation framework.
2. Second, a short overview of the current status of CAP strategic plans within EU member states is given, alongside an overview of the current status concerning relevant policies named in the grant agreement, namely: the Farm to Fork Strategy, the European Protein Plan, EU Biodiversity Strategy, Bioeconomy Strategy and the “4 per 1,000” initiative. Further information is also provided on a new project milestone that will be delivered by end of February 2023, describing the outcomes from about 30 expert interviews conducted in 2022.
3. In the final section common themes are drawn together, to identify focus areas for the developing of a holistic evaluation framework and future needs, and a timeframe for the evaluation framework development.

The initial assessments presented here will provide a robust basis for future work that can facilitate the identification of PATHWAYS for livestock Europe.

## Summary and conclusions

The analysis of literature and policy documents has revealed some common themes that emerge regarding the identified challenges and proposed solutions for greater sustainability in the livestock sector. While the literature review discussed mainly the impacts of policies in the past or on the current status of the livestock sector, the policy analysis considers more recent and future directions and objectives of policies related to livestock farming in the EU.

The literature review on policy implications clearly highlights the range of impacts that livestock farming has on the environment either directly or indirectly through the production of feed with regard to greenhouse gas emissions, water pollution or erosion. Previous CAP reforms have focused increasingly on improving the sustainability of farming systems, however a lack of details in regulations, concrete and consistent targets, enforcement, farmer support or willingness, livestock farming in the EU is still linked to issues relevant to all sustainability dimensions.

At the same time, it has become clear that current policies are not adequately addressing the challenges the sector faces, both in terms of problems faced by actors within the sector and issues created by livestock farming as negative externalities. While there seems to be a general awareness and understanding of the environmental problems caused by livestock production directly or indirectly through the production of feed from the European Commission, environmental legislation fails to specify livestock farming as a root cause for the ecological problems they are attempting to solve (e.g. pollution in the Nitrate Directive). This dichotomy is a likely result of negotiating conflicting interests, but it risks downplaying the role that livestock farming needs to take for reducing negative effects.

The literature review has shown the dependency of many livestock farmers on farm payments and highlighted the often-difficult socio-economic conditions faced. However, while the analysed current policies seem to consider general socio-economic issues of the agricultural sector, they do not specifically relate to livestock farming.

Animal welfare concerns have gained increasing consideration through past CAP reforms, which reflects growing public awareness and expectation. Yet, legislation is still missing for some species, and better enforcement and higher premiums to compensate for changes to improve welfare are needed to further

increase animal welfare. Current policies address the demand for further improving animal welfare by creating new animal welfare labels, incorporating animal welfare in trade agreements, prohibiting certain systems, and better regulating veterinary medicines. In this, we notice a connection to the One Welfare concept as some strategies and some of the reviewed literature directly link improved animal welfare to better conditions for farm workers, protected biodiversity and/or better human health.

The proposed solutions to the issues related to livestock farming can be summarised as 1) informing citizens to choose healthier, sustainable diets; 2) price instruments to make most sustainable food most accessible and affordable; 3) sustainable intensification including new technology and 4) agroecology. Generally, these solutions, as well as the assessed literature, consider only “shallow” food system changes, when assessed against the leverage point of Re-Structure (Abson et al., 2017), rather than a wholesale system redesign.

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